DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 70.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-005436
Date Inspected: 05-Mar-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works

OSM Arrival Time: 830
OSM Departure Time: 1830
Location: Muroran, Japan

CWI Name: Chung Kuan and MaKhmud Ashadi

CWI Present:	☑ Yes	☐ No		**Inspected CWI report:**	☐ Yes	☑ No	☐ N/A
Rod Oven in Use:	☑ Yes	☐ No	☐ N/A	**Electrode to specification:**	☑ Yes	☐ No	☐ N/A
Weld Procedures Followed:	☑ Yes	☐ No	☐ N/A	**Qualified Welders:**	☐ Yes	☑ No	☐ N/A
Verified Joint Fit-up:	☑ Yes	☐ No	☐ N/A	**Approved Drawings:**	☐ Yes	☑ No	☐ N/A
Approved WPS:	☐ Yes	☑ No	☐ N/A				
Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A				

Bridge No: 34-0006
Component: Tower, Jacking and Deviation Saddles

Summary of Items Observed:

Caltrans Quality Assurance Inspector (QAI) representative Mr. Wai Pau, travel to Japan Steel Works (JSW) Muroran plant to witness an AWS D1.5 standard PQR qualification welding test. The number of PQR qualification welding test is SJ-2942-WP-13 (test plate SW-8-2).

The material used for the PQR qualification test specimens was reported by JSW Welding Engineer Mr. Takaaki Maruya as ASTM a 709M-HPS-485WT and A148-Gr-620-415 plate to casting and having a wall thickness measurement of 90mm. The weld joint design considered a Partial joint penetration (PJP) double bevel groove weld with one side 39mm thick, root face 2mm and other side 49mm thick. The PQR qualification test utilizing two welding processes were conducted by welder Mr. Kouzou Kobayashi (08-5023) performed in the uphill vertical position (3G) with Shielded Metal Arc Welding (SMAW) welding process and flat position (1G) with Flux Cored Arc Welding FCAW welding process.

The proper filler metal and shield gas used in the test for FCAW is Hoballoy 9018-M with 5mm diameter electrode and TM-95K2, 1.6 diameter with 100% C02 made by Hobart Brothers, USA. The welder performed the FCAW welding process and parameters have been monitored and recorded by CWI inspectors Mr. Chung Kuan, Mr. MaKhmud Ashadi and JSW Welding Engineer Mr. Takaaki Maruya, also observed by Caltrans QAI. A total of fifteen interior filler weld passes have been completed on 49mm thick side and ten interior filler weld passes completed on 39mm thick side. The welding for this PQR plate has been completed. The welding for this PQR plate has been completed. Based on Caltrans QA observation, the PJP welding test was appeared to be in general compliance with requirements of AWS D1.5 2002 and Caltrans contract document. The PQR will be schedule for macro etch tests

Summary of Conversations:

WELDING INSPECTION REPORT

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As noted within the report above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer (858)697-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer